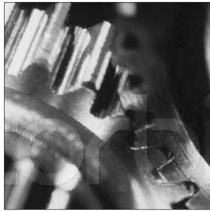
case thirteen

Birds Eye and the UK Frozen Food Industry



Teaching Note

Synopsis

The case describes the history of Birds Eye and the United Kingdom frozen foods industry, starting with its establishment during World War II, and continuing through the mid-1980s. Birds Eye, which pioneered the industry, began as a vertically integrated producer and quickly built a dominant market share. This position eroded when changes in retail distribution and the maturing of the industry allowed competitive markets to emerge at each stage of the production and distribution chains. When this occurred, Birds Eye's product breadth and vertical integration became a competitive disadvantage that resulted in its rapid loss of market share and profitability.

Teaching Objectives

The case allows students to examine the advantages and disadvantages of vertical integration. Thereby, it enables the students to:

- articulate economic and strategic rationales for vertical integration;
- apply the theoretical treatment of transactions cost economics to a practical problem;

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- discuss the notions of asset specificity and monitoring and incentive costs as explanations for and against vertical integration;
- analyze an industry value chain to determine sources of competitive advantage at each stage;
- study an industry's evolution from emergence to maturity.

Position in the Course

In the latter part of my strategic management course I shift from issues of business strategy (the quest for competitive advantage) to issues of corporate strategy (the scope of the firm). I typically deal with vertical integration as the first topic in corporate strategy.

Assignment Questions

1. Why did Birds Eye develop as a vertically integrated producer?
2. In sourcing raw materials, explain why Birds Eye adopted different arrangements for peas, fish, and meat.
3. Why did specialized intermediaries emerge?
4. Did a vertically integrated producer have a competitive advantage over more vertically specialized suppliers of frozen foods during the early 1980s?
5. What should Birds Eye have done in 1979?

Reading

R. M. Grant, *Contemporary Strategy Analysis* (5th edn), Blackwell Publishing, 2005, chapter 13.

Suggested Teaching Outline

1. *Why did Birds Eye develop as a vertically integrated company?*
   - What explains its choice at each stage in the value chain?
   - Why would no one build a cold store next to the Great Yarmouth plant?
   - Why can't you write a contract with the cold store to prevent opportunism?
   - Why did they contract for peas? Why control all the important farming decisions? Is it easy to write that contract?
   - Why did they originally own the pea harvester?
   - Why did they not rent display cabinets? Should they have?

2. *What sort of advantage did Birds Eye build over other vertically integrated producers?*
   - Where were the scale economies?
   - Why didn't Ross/Findus underprice or advertise heavily?
   - How did Birds Eye preserve its advantage?
3. *Why did the frozen food industry de-integrate?*
   - What happened to asset specificity?
   - Were contracts easier to write? Why?
   - How did a £1 million pizza company compete with Birds Eye?
   - How big was Christian Salvesen?
   - Why did de-integration suddenly begin in the late 1960s?
4. *What are Birds Eye's problems in the late 1970s?*
   - Are there any benefits to being vertically integrated? Any drawbacks?
   - Why are specialists lower cost? How can Christian Salvesen be more efficient than Birds Eye?
5. *What should Birds Eye do?*

Overview

The three main areas of discussion – the theoretical analysis of vertical integration, the emergence of intermediary competitive markets, and Birds Eye's later strategic position – move from the theoretical to the strategic. There is far too much material to cover in one class, so the instructor should decide in advance where he or she wishes to spend the bulk of the time. I usually spend nearly an hour on the first theoretical discussion to ensure that all students understand the basic elements, opting to sacrifice the richness of the later strategic analysis.

The trick to generating learning in the first discussion is to limit the analysis to only three steps in the value chain – cold storage, peas, and display cabinets – and then to play off the differences between them. This enables the students to learn from the contrast between the presence and absence of asset specificity, and between monitoring and incentive costs.

I like to begin the discussion with cold stores. Thus, after the initial round of student explanations for vertical integration – barriers to entry, quality control, pioneering, etc. – or after someone mentions asset specificity, I ask why no one would build a cold store next to Birds Eye's plant in Great Yarmouth. If students hesitate, I urge them to role-play the owner of the cold store and Birds Eye. "You've built the cold store. Now, Birds Eye make an offer for renting the cold store this year." Once an offer is made, the cold store owner's response usually is: "I have no alternative." "Will you then build the cold store?" Response: "No." Some students playing the cold store owner will make a counter-offer and argue that Birds Eye has no alternative but to accept it. This is also true. The point is that both sides have the option of behaving opportunistically, and this opportunism disrupts any contractual arrangements and ensures continual haggling between the two parties, preventing them from effectively working together.

Once students understand that the asset specificity of such an investment leads Birds Eye to vertically integrate, I ask why they can't write a contract for 20 years to cover the investment. This brings home the enormous uncertainty about demand for frozen foods that was present in the early post-war years. This uncertainty made it very difficult (if not impossible) to write a long-term contract that would cover all possible eventualities. Some students will argue that a longer term relationship between two independent parties can be established, as between the Japanese car companies and their suppliers. This deserves exploration. It is based on the absence of opportunistic behavior. Trust is established in the relationship so that neither side will try to exploit the other. Other students will observe that trust may well be the optimal behavior if opportunism builds a reputation that prevents a firm from working with anyone else on other deals.

I next make the contrast with peas. The processor needn't own land because it is not an asset-specific investment, and a contract that controls nearly all the critical elements – planting and harvesting time, seed type, fertilizers, etc. – is easy to write and cheap to monitor. I ask what is left for the farmer to do between 6 a.m. and 10 p.m. seven days a week. Some students say nothing; others pick up on the theme but say he walks the field pulling up each and every weed. Does his work matter? Yes, critically. Hence, he is left as a profit participant so that his incentives are appropriately aligned. What, then, of the cold store manager who is an employee – are his incentives appropriately aligned? Answer: it doesn't matter; all he does is open and close the refrigerator door! His effort has very little bearing on cold store performance. Furthermore, he is much easier and cheaper to monitor than hundreds of farmers in their fields from 6 a.m. to 10 p.m. This sort of comparing and contrasting I find very effective in driving home a few basic points about vertical integration: vertical integration is required when there are asset-specific investments (that can hold up); when uncertainty leads to the inability to write long-term contracts; and when easy monitoring and/or the effort of employees do not substantially affect performance. Markets are favored when these conditions do not hold.

Even the exception to the above argument – the pea harvester – is readily explained by these terms. It is an expensive asset-specific investment so originally the processor owns it. After a number of years, having built trust through frequent transactions, the pea cooperatives own it, although still with a repurchase clause in the contract.

The other part of the value chain I like to discuss is the display cabinet, because this generates a debate over whether or not Birds Eye should have rented or given cabinets to retailers. A brief initial discussion about why Birds Eye did not manufacture the display cabinets – there are suppliers of related equipment who can make the cabinets with minimal asset-specific investments – gets the argument going. I myself am unsure why it didn't rent cabinets, unless it was due to shortage of capital. Theoretical arguments are possible – notably Birds Eye's threat of later holdup (withdrawing the cabinet) unless the retailer accepts price increases – but seem weak. When Mars entered the UK ice cream market with the "Mars" ice cream bar in the late 1980s, it had to rent display cabinets at great expense to overcome the established ice cream manufacturers' lock on cabinets, so it would certainly have increased entry barriers. After the careful learning of the earlier discussions, students like the freedom to debate this issue with each other.

The discussion about de-integration is relatively straightforward. The most interesting question is not, "why did it de-integrate?" (where I stop to give Adam Smith's famous quote on the division of labor being limited by the size of the market), but "what was the triggering event?" Everyone can see that when the industry de-integrates, merchant players can exist, but what suddenly brings them into existence? What flips the equilibrium from vertically integrated to de-integrated? Everything actually happens very quickly in the late 1960s and early 1970s: merchants appear, private labels appear, Birds Eye loses share and profitability. I tend to believe that the triggering event was the emergence of private labels encouraged by the newly consolidated large retailers. In fact, I think that at the time (late 1960s), Sainsbury went along the entire chain and asked everyone involved to set up private label supplies, which brought de-integrated players into all stages of the market at one go.

Discussion of the problems Birds Eye faced in the late 1970s illustrates how the broad-scope, vertically integrated competitor is now at a competitive disadvantage. Merchants at each stage are either low-cost, low-overhead specialists or are able, by virtue of sharing their services over a number of different customers, to be broader scope and lower cost. Christian Salvesen is, for example, able to use its cold stores counter-seasonally, storing turkeys for Christmas and Cadbury's creme eggs for Easter to offset frozen vegetable seasonality. In contrast, at the marketing level, Birds Eye has to be an umbrella brand covering both commodity french fries and competing in gourmet desserts against Sara Lee. By the late 1970s, it really was in a strategic bind.

Analysis

1. Why did Birds Eye develop as a vertically integrated producer?

1. Pioneering
   - No existing suppliers; even had to invent some things
   - Had to demonstrate market potential
   - Need to invest ahead of demand.
2. Exploit scale economies.
3. Build barriers to entry: high capital costs made it difficult for others to replicate.
4. Coordination requirements
   - Peas processed within 90 mins of picking
   - Deliver quality product through chain
   - Need to minimize variation during distribution and storage.

2. What explains Birds Eye's choices at each stage of the value chain?

1. Peas (contract: annual contract per ton by quality; processor controls seed, planting and harvesting time, approves fertilizer and pesticide; processor first

owns harvester, then grower with a buyback agreement if no annual contract). Key factors:

- No asset specificity (except harvester; land can be used for other crops; can easily write a contract to control other elements such as seed/plant and harvest/fertilizer and pesticide)
- Leaves incentive for farmer to work hard – required to get good harvest
- Saves: monitoring cost of hired farmers, crop risk
- Trust builds over 20 years.

2. Broilers and cod (vertical integration failed, so contract)
   - Efficient markets/competitors exist; e.g., dockside auction for fish
   - Birds Eye has no competitive advantage in those industries.
3. Cold stores
   - Cold stores adjacent to Birds Eye processing plants: asset specificity (can't use cold stores for anything else; lack of other opportunities, i.e., lock-in)
   - Long-lived (20 years) investment
   - Uncertainty over demand/future of frozen foods makes it difficult to write a contract
   - Monitoring costs and incentives of internalization are not major issues: store managers just open and close doors so their efforts are unimportant.
4. Processing (integrate)
   - Asset specificity
   - Need to process for a full-line marketer in order to get year-round utilization
   - Physically located next to source
   - Uncertainty (over crop yields, type of product, machine reliability, etc.).
5. Distribution (integrate)
   - Asset specificity (refrigerated trucks)
   - Uncertainty.
6. Cabinets (purchase)
   - Can't afford to give away to 150,000 stores @ £150 each = £23m investment, compared to £34m total capital employed in 1972
   - If Birds Eye rents the cabinet – retailers subject to holdup threat by Birds Eye
   - Competition among retailers will force diffusion without Birds Eye support
   - Not specific assets (same as catering freezers).

3. *Why did the frozen food industry de-integrate?*

1. Market size expanded/confirmed by late 1960s (35 percent p.a. growth 1946–62 slowing to 7 percent 1964–84, increasing number of outlets, widening product variety).
2. Reduced uncertainty (easier to write contracts to rent truck/processing/space).

3. Bigger market with more players reduces asset specificity – space can be used for other competitors.
4. "Division of labor is limited by size of market" – Adam Smith.
5. Catering had own wholesaler distribution channel.
6. Technology (blast freezer allows low-cost, small-scale entry).
7. Retailing changes (self-service growth, growth of supermarket chains, rising retail concentration).
8. Growth of home freezer centers post-1968 (e.g., Bejam).
9. Growth of retailers' private labels (Sainsbury, with 10 percent, is number three brand by 1980s).
10. Widespread new entry – by 1973, 22 companies have entered.
11. Merchant markets develop at each stage (growth of public cold store companies such as Salvesen).

4. What problems does Birds Eye have in the late 1970s?

1. Scope too broad
   - Huge product range
   - Top five products only 40 percent of sales
   - Brand name pulled too far, competitors' specialty brands gain share.
2. High-cost manufacturing
   - Broad-scope factories
   - 1977–80 spend £20m to focus factories.
3. High-cost distribution
   - Now only 20 percent of market, compared with 10 percent for Sainsbury; Salvesen distributes more than Birds Eye
   - Merge only with Walls ice cream.
4. High-cost cold store.
5. Used price to retain share – hurts brand image.
6. Loses market share – down to 20 percent of total market, with only 10 percent of catering, 8 percent of freezer centers.
7. Financial performance – barely breaks even.

5. Is there any benefit to being vertically integrated?

No, all the heritage is negative.

6. What should Birds Eye do?

1. Focus brands.
2. Focus factories.

3. Consolidate distribution.
4. De-integrate, become just the marketing arm to earn rents on the brand and use merchants to grow, process, store, and maybe even distribute the product.

Summary

I review the two main lessons of the case. The first is the theory of transactions costs and its presumption that all transactions should by default be done on the market, not inside the hierarchy (unless asset specificity, uncertainty, and low frequency of transactions prevent it). The second lesson is how Birds Eye got locked into a certain strategy by virtue of its success, and stayed with it even as it became a competitive disadvantage.